

Chart XIII shows the conditions of the 13th, and indicates the path of the center of this disturbance.

Fog.—There was not so much fog as during the preceding May over waters close to the British Isles and France; but from Delaware Bay to the eastern limits of the Grand Banks there was substantially as much as in May, and a decided increase was noted farther northeastward between 45° and 55° N., 20° and 35° W. This last-named region, however, had scarcely any fog close to the middle of the month or during the final week.

The region of the Grand Banks experienced little fog before the 9th, and the waters near the Maritime Provinces and New England had comparatively little during the first 8 days of the month or after the 22d.

There was somewhat less fog than usual during June over waters to southward of Nova Scotia and western Newfoundland, and generally near the 45th parallel from

the 30th meridian to the European continent. On the other hand there was more than usual near 50° N., 35° W. As a rule the waters close to the northeastern coast of the United States, and the waters southeast and east of Newfoundland had about as much fog as usual in June.

There were two well-separated 5° squares with 14 days of fog each, the greatest number tabulated from available reports. One was the square from 40° to 45° N., 65° to 70° W., the other from 40° to 45° N., 50° to 55° W.

Two considerable mishaps resulted from fog over Atlantic waters. The British Steamship *Penolver* grounded on the 12th, while approaching Louisburg, Nova Scotia. The vessel was soon freed, but had to be largely unloaded and then docked for repairs. Off Plymouth, England, two vessels collided, probably on the 22d, with much damage to each, but both vessels made port promptly.

OCEAN GALES AND STORMS, JUNE 1939

Vessel	Voyage		Position at time of lowest barometer		Gale began June	Time of lowest barometer, June	Gale ended June	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Direction and highest force of wind	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Leto, Du. S. S.	Rotterdam	Wabana	49 42 N.	39 54 W.	2	Noon, 2.	3	29.57	S	SW, 9	W	SW, 9	SW-WSW.
Aztec, Am. M. S.	Tuxpam	Houston	24 30 N.	95 40 W.	3	4a, 3.	3	29.87	SE	SE, 5	NW	NW, 8	SE-W-NW.
Chelan, U. S. Coast Guard	On ice patrol out from Halifax.		41 41 N.	53 03 W.	5	3a, 6.	5	29.81	SW	NW, 5	S	SW, 9	WNW-N.
Do.	do.		141 15 N.	52 07 W.	7	3p, 6.	8	29.84	SE	W, 3	SE	S, 8	W-SW.
Black Condor, Am. S. S.	Antwerp	New York	41 10 N.	57 52 W.	5	2a, 7.	7	29.59	SSW	SW, 6	N	SSW, 8	SW-NW.
Columbus, Ger. S. S.	Cobh	do	40 42 N.	54 12 W.	7	8a, 7.	7	29.63		SE, 8		SE, 8	
Bockenheim, Ger. S. S.	Fredrikshaven	Boston	58 39 N.	15 55 W.	8	Noon, 9.	10	29.80	SW	W, 9	W	W, 9	SW-W.
Executive, Am. S. S.	Gibraltar	New York	36 36 N.	60 15 W.	9	1a, 10.	10	29.84	SW	SW, 8	SW	SW, 8	SW-NNE.
Hibueras, Am. S. S.	New Orleans	Porto Castilla	21 48 N.	87 00 W.	12	4p, 12.	12	29.72		ENE, 6		ENE, 6	ENE-SE.
Oropesa, Br. S. S.	Havana	Cristobal	22 20 N.	84 45 W.	12	2a, 13.	13	29.49	S	S, 7	SSE	SSW, 8	S-SSW.
Carrillo, Am. S. S.	Barrios	Charleston	23 00 N.	84 12 W.	12	7a, 13.	13	29.69	E	E, 7	SSE	SE, 8	E-SE.
Alabama, Am. S. S.	Houston	San Juan	24 54 N.	85 06 W.	12	3p, 13.	14	29.77	E	SE, 8	S	SE, 9	ESE-S.
Orotava, Hond. S. S.	Tela	New Orleans	26 00 N.	88 00 W.	13	4p, 13.	13	29.67		NNE, 8		NNE, 8	
Bockenheim, Ger. S. S.	Fredrikshaven	Boston	51 31 N.	34 03 W.	13	7p, 13.	13	29.69	SSW	SW, 9	WSW	SW, 9	SSW-WSW.
Kofresi, Am. S. S.	Tampa	Mobile	29 30 N.	87 36 W.	13	6p, 14.	14	29.54	S	NE, 8	NNE	ENE, 8	ENE-N.
Gulfling, Am. S. S.	Portland, Maine.	Port Arthur	26 22 N.	86 15 W.	13	4a, 15.	15	29.75	SE	SW, 5	SW	SW, 3	None.
Frode, Dan. S. S.	Aalborg	New York	57 35 N.	20 40 W.	15	11a, 15.	15	29.41	W	WSW, 5	W	W, 8	SW-WSW.
West Madaket, Am. S. S.	Mobile	London	48 30 N.	18 00 W.	16	4a, 17.	18	29.76	W	SW, 8	NNW	SW, 8	
Tuscaloosa City, Am. S. S.	Avonmouth	Baltimore	50 48 N.	17 24 W.	16	5a, 17.	17	29.50	W	WSW, 8	W	WSW, 8	SW-WSW.
Chelan, U. S. Coast Guard.	On ice patrol out from Halifax.		41 36 N.	49 00 W.	17	1p, 17.	17	29.74	SSW	W, 7	W	SSW, 9	SSW-W.
Excello, Am. S. S.	New York	Casablanca	40 00 N.	63 24 W.	18	8p, 17.	18	29.84	NNW	NNE, 4	NNW	NNW, 8	E-NNE.
Spaarndam, Du. S. S.	Antwerp	New Orleans	36 24 N.	53 54 W.	18	7a, 18.	18	29.69		SW, 8	SW	SW, 8	W-SW-NW.
Schoharie, Am. S. S.	Bremen	Jacksonville	40 26 N.	38 13 W.	19	9a, 19.	19	29.88		S, 8		S, 8	
Frode, Dan. S. S.	Aalborg	New York	49 49 N.	39 05 W.	19	4p, 19.	19	29.48	S	SW, 8	SW	SW, 8	None.
Exiria, Am. S. S.	Gibraltar	do	40 06 N.	41 36 W.	23	2p, 23.	23	29.69	SSW	SW, 8	W	SW, 8	SSW-WSW.
NORTH PACIFIC OCEAN													
Gefion, Nor. M. S.	Yokohama	Estero Bay	43 35 N.	172 24 W.	1	4p, 1.	1	29.06	ESE	SE, 8	SE	SE, 8	ESE-SW.
Jefferson Myers, Am. S. S.	Dairen	Portland, Oreg.	43 30 N.	173 00 W.	1	11p, 1.	2	29.08	E	E, 10	SE	E, 10	E-ESE.
Manoa, Am. S. S.	Mahukona	San Francisco	37 18 N.	123 24 W.	1	4a, 2.	2	29.96	N	NW, 7	NW	NNW, 8	NW-SW.
Toho Maru, Jap. M. S.	Genzan	Los Angeles	45 04 N.	179 57 E.	2	Midt, 2.	2	28.53	SW	WNW, 6	S	SW, 8	NW-SW.
Empress of Russia, Br. S. S.	Victoria, B. C.	Yokohama	50 00 N.	176 00 E.	2	4a, 3.	3	29.25	NE	NNE, 11	N	NNE, 11	NE-N.
Kaijo Maru, Jap. M. S.	San Francisco	Niigata	49 56 N.	174 00 E.	2	3a, 3.	4	29.33	NE	NNE, 8	NNW	N, 9	N-NNE-N.
Republic, U. S. A. T.	Balboa	San Francisco	15 18 N.	98 00 W.	12	5a, 13.	13	29.63	E	E, 8	E	E, 8	
Occidental, Am. S. S.	do	Los Angeles	15 00 N.	96 40 W.	13	2p, 13.	13	29.34	E	NNW, 10	W	NW, 10	E-NW.
Pres. Monroe, Am. S. S.	do	do	14 49 N.	96 55 W.	13	2p, 13.	13	29.10	S	SSE, 6	WNW	NW, 12	SSE-N-NW.
Philadelphia, U. S. N.	do	do	15 03 N.	98 34 W.	13	8a, 13.	13	29.44	E	NE, 9	WNW	N, 12	ENE-N.
Dickenson, Am. S. S.	Honolulu	Midway	27 12 N.	173 36 W.	14	6a, 14.	14	29.77		S, 9		S, 9	SSE-SW.
Niel Maersk, Dan. M. S.	Yokohama	Los Angeles	45 58 N.	174 41 W.	14	Noon, 15.	15	29.59	NNE	ENE, 3	NE	NNE, 9	NE-E.
Lewis Luckenbach, Am. S. S.	Balboa	do	17 18 N.	101 36 W.	27	5a, 28.	28	29.72	E	ESE, 7		E, 8	E-ESE.

¹ Position approximate.

NORTH PACIFIC OCEAN, JUNE 1939

By WILLIS E. HURD

Atmospheric pressure.—For the most part the average pressure distribution on the North Pacific Ocean in June 1939 was close to normal. The only radical departure noted was at Petropavlovsk, where the average of 30.01 inches was 0.15 above the normal. The Aleutian Low

was slightly deeper than in the preceding month, owing to the greater and unusual prevalence of cyclones over the central islands of the group, especially during the first and last parts of June. At Dutch Harbor the average pressure was 29.89, as compared with 29.94 in May. High pressure was central over the eastern part of the ocean in middle latitudes. The usual summer low prevailed off the China coast.